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Polymer Science U.S.S.R. Vol. 25, No. 11, pp. 2705–2713, 1983
Printed in Poland

0032-3950/83 $10.00+.00
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# NITROGEN AND PHOSPHORUS-CONTAINING POLYAMPHOLYTES BASED ON POLYVINYLBENZYLAMINE*

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(*Received* 30 *May* 1982)

Ionites with α-aminomethyl phosphinic acid groups have been prepared by chemical modification of polyvinylbenzylamine of various structures with sodium hypophosphite in the presence of formaldehyde, according to the Kabachnik–Fields reaction. The optimum conditions for polyampholyte synthesis were found. Their composition and structure were established and the basic physico-chemical properties studied. The nature of the chemical bond of the ionogenic groups of the polymer with certain metallic ions was studied. The study of the sorption properties of the synthesized polyvinylbenzylamine derivatives and calculation of the stability constants of the complexes with certain metals showed a high affinity for the latter. The nitrogen and phosphorus-containing sorbents can be used for selective extraction of the ions of certain metals.

ONE of the main directions in the field of ionite synthesis is the preparation of phosphorus-containing ionites, having complex-forming properties and exhibiting a high affinity for ions of heavy and transition metals. The most promising method of preparing thermally and chemically stable ionites is by the modification of polymers with amino groups by the Kabachnik–Fields method, of broad application in the synthesis of nitrogen and phosphorus containing polyampholytes [1, 2], by virtue of its simplicity and the likelihood of obtaining a high amino group conversion. Substituted alkyldiamino copolymers of methacrylate with a

* Vysokomol. soyed. **A25:** No. 11, 2328–2334, 1983.